BRAIN RESEARCH

VOL. 742 NOS. 1,2 **CONTENTS** **2 DECEMBER 1996**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Publisher's Note v

Guidelines for submission of manuscripts vii

Research reports

Evidence for the presence of neurokinin-1 receptors on dorsal horn spinocerebellar tract cells in the rat
D.J. McGonigle, D.J. Maxwell, S.A.S. Shehab and R. Kerr (UK) 1

Estrous cycle phase variations in visceromotor and cardiovascular responses to colonic distension in the anesthetized rat
S. Sapsed-Byrne, D. Ma, D. Ridout and A. Holdcroft (UK) 10

Rapid sampling of extracellular dopamine in the rat prefrontal cortex during food consumption, handling and exposure to novelty
M.G.P. Feenstra and M.H.A. Botterblom (The Netherlands) 17

Alterations in intralaminar and motor thalamic physiology following nigrostriatal dopamine depletion
J.S. Schneider and D.S. Rothblat (USA) 25

Two types of voltage-gated K channels in carotid body cells of adult cats
C.-L. Chou and M. Shirahata (USA) 34

Aspartate is enriched in sensory cells and subpopulations of non-neuronal cells in the guinea pig inner ear: a quantitative immunoelectron microscopic analysis
S.-i. Usami and O.P. Ottersen (Japan, Norway) 43

Linear and non-linear components in the centre-surround response of X- and Y-cells in the cat lateral geniculate nucleus
K. Funke, P. Meller, H.-C. Pape and U.T. Eysel (Germany) 50

Effects of muscarinic receptor antagonism on the phosphatidylinositol bisphosphate signal transduction pathway after experimental brain injury
B.G. Lyeth, Q.-Z. Gong, H.S. Dhillon and M.R. Prasad (USA) 63

Effects of prenatal cocaine exposure on the mesocorticolimbic dopamine system: an in vivo microdialysis study in the rat
R.W. Keller Jr., K.S. Johnson, A.M. Snyder-Keller, J.N. Carlson and S.D. Glick (USA) 71

Neuroprotective effects of the dopamine D_2/D_3 agonist pramipexole against postischemic or methamphetamine-induced degeneration of nigrostriatal neurons
E.D. Hall, P.K. Andrus, J.A. Oostveen, J.S. Althaus and P.F. VonVoigtlander (USA) 80

Enhanced norepinephrine release in prefrontal cortex with burst stimulation of the locus coeruleus
S.M. Florin-Lechner, J.P. Druhan, G. Aston-Jones and R.J. Valentino (USA) 89

Prenatal exposure to alcohol in adult rats: relationships between sleep and memory deficits, and effects of glucose administration on memory
W.S. Stone, H.J. Altman, J. Hall, G. Arankowsky-Sandoval, P. Parekh and P.E. Gold (USA) 98

Effects of melatonin on estrogen receptor expression in the forebrain of outbred (Lak.LVG) golden hamsters
S.M. Hill, L.L. Spriggs, N.O. Lawson and R.E. Harlan (USA) 107

Rubral astrocytic reactions to proximal and distal axotomy of rubrospinal neurons in the rat
G.-F. Tseng, Y.-J. Wang and Q.-C. Lai (Taiwan, R.O.C.) 115

Arachidonic acid regulation of vasopressin release and intracellular Ca^{2+} in neurohypophysial nerve endings
E.L. Stuenkel, G. Dayanithi and J.J. Nordmann (USA, France) 129

Differential effects of haloperidol and two anxiolytic drugs, buspirone and lesopitron, on c-Fos expression in the rat striatum and nucleus accumbens
G. Palacios, M.A. Muro and A. Paz Marín (Spain) 141

Calcium in suramin-induced rat sensory neuron toxicity in vitro
X. Sun and A.J. Windebank (USA) 149

Cocaine and lidocaine in combination are synergistic convulsants
S.A. Barat and M.S. Abdel-Rahman (USA) 157

The sexually dimorphic nucleus of the hypothalamus contains GABA neurons in rat and man
B. Gao and R.Y. Moore (USA) 163

Phorbol ester modulation of both δ-mutant and subunit-omitted nicotinic receptors expressed in *Xenopus* oocytes
C. Limatola, E. Palma, A.M. Mileo and F. Eusebi (Italy) 172

Region-specific reduction in stress-induced c-*fos* mRNA expression during pregnancy and lactation
A.P.C. Da Costa, S. Wood, C.D. Ingram and S.L. Lightman (UK) 177

Stimulatory effect of arachidonic acid on the release of GABA in matrix-enriched areas from the rat striatum
A. Chéramy, F. Artaud, G. Godeheu, M. L'hirondel and J. Glowinski (France) 185

(contents continued on p. 363)

0006-8993(19961202)742:1/2;1-V

BRAIN RESEARCH

VOL. 742 NOS. 1,2 **CONTENTS** **2 DECEMBER 1996**

Cited in Biological Abstracts (BIOSIS) – Chem. Abstracts – Index Medicus (MEDLINE) – Current Contents (Life Sci.) – Excerpta Medica (EMBASE) – Psychological Abstracts (PsycINFO) – Pascal et Francis (INIST-CNRS) – RIS (Reference Update) – Current Awareness in Biological Science (CABS)

Publisher's Note v

Guidelines for submission of manuscripts vii

Research reports

Evidence for the presence of neurokinin-1 receptors on dorsal horn spinocerebellar tract cells in the rat
D.J. McGonigle, D.J. Maxwell, S.A.S. Shehab and R. Kerr (UK) 1

Estrous cycle phase variations in visceromotor and cardiovascular responses to colonic distension in the anesthetized rat
S. Sapsed-Byrne, D. Ma, D. Ridout and A. Holdcroft (UK) 10

Rapid sampling of extracellular dopamine in the rat prefrontal cortex during food consumption, handling and exposure to novelty
M.G.P. Feenstra and M.H.A. Botterblom (The Netherlands) 17

Alterations in intralaminar and motor thalamic physiology following nigrostriatal dopamine depletion
J.S. Schneider and D.S. Rothblat (USA) 25

Two types of voltage-gated K channels in carotid body cells of adult cats
C.-L. Chou and M. Shirahata (USA) 34

Aspartate is enriched in sensory cells and subpopulations of non-neuronal cells in the guinea pig inner ear: a quantitative immunoelectron microscopic analysis
S.-i. Usami and O.P. Ottersen (Japan, Norway) 43

Linear and non-linear components in the centre-surround response of X- and Y-cells in the cat lateral geniculate nucleus
K. Funke, P. Meller, H.-C. Pape and U.T. Eysel (Germany) 50

Effects of muscarinic receptor antagonism on the phosphatidylinositol bisphosphate signal transduction pathway after experimental brain injury
B.G. Lyeth, Q.-Z. Gong, H.S. Dhillon and M.R. Prasad (USA) 63

Effects of prenatal cocaine exposure on the mesocorticolimbic dopamine system: an in vivo microdialysis study in the rat
R.W. Keller Jr., K.S. Johnson, A.M. Snyder-Keller, J.N. Carlson and S.D. Glick (USA) 71

Neuroprotective effects of the dopamine D_2/D_3 agonist pramipexole against postischemic or methamphetamine-induced degeneration of nigrostriatal neurons
E.D. Hall, P.K. Andrus, J.A. Oostveen, J.S. Althaus and P.F. VonVoigtlander (USA) 80

Enhanced norepinephrine release in prefrontal cortex with burst stimulation of the locus coeruleus
S.M. Florin-Lechner, J.P. Druhan, G. Aston-Jones and R.J. Valentino (USA) 89

Prenatal exposure to alcohol in adult rats: relationships between sleep and memory deficits, and effects of glucose administration on memory
W.S. Stone, H.J. Altman, J. Hall, G. Arankowsky-Sandoval, P. Parekh and P.E. Gold (USA) 98

Effects of melatonin on estrogen receptor expression in the forebrain of outbred (Lak.LVG) golden hamsters
S.M. Hill, L.L. Spriggs, N.O. Lawson and R.E. Harlan (USA) 107

Rubral astrocytic reactions to proximal and distal axotomy of rubrospinal neurons in the rat
G.-F. Tseng, Y.-J. Wang and Q.-C. Lai (Taiwan, R.O.C.) 115

Arachidonic acid regulation of vasopressin release and intracellular Ca^{2+} in neurohypophysial nerve endings
E.L. Stuenkel, G. Dayanithi and J.J. Nordmann (USA, France) 129

Differential effects of haloperidol and two anxiolytic drugs, buspirone and lesopitron, on c-Fos expression in the rat striatum and nucleus accumbens
G. Palacios, M.A. Muro and A. Paz Marín (Spain) 141

Calcium in suramin-induced rat sensory neuron toxicity in vitro
X. Sun and A.J. Windebank (USA) 149

Cocaine and lidocaine in combination are synergistic convulsants
S.A. Barat and M.S. Abdel-Rahman (USA) 157

The sexually dimorphic nucleus of the hypothalamus contains GABA neurons in rat and man
B. Gao and R.Y. Moore (USA) 163

Phorbol ester modulation of both δ-mutant and subunit-omitted nicotinic receptors expressed in *Xenopus* oocytes
C. Limatola, E. Palma, A.M. Mileo and F. Eusebi (Italy) 172

Region-specific reduction in stress-induced c-*fos* mRNA expression during pregnancy and lactation
A.P.C. Da Costa, S. Wood, C.D. Ingram and S.L. Lightman (UK) 177

Stimulatory effect of arachidonic acid on the release of GABA in matrix-enriched areas from the rat striatum
A. Chéramy, F. Artaud, G. Godeheu, M. L'hirondel and J. Glowinski (France) 185

(contents continued on p. 363)

0006-8993(19961202)742:1/2;1-V

(contents continued from back cover)

Inhibition of the nerve growth factor-induced outgrowth of neurites by trichostatin A requires protein synthesis de novo in PC12D cells
M. Sano and S. Kitajima (Japan) 195
Nucleus ambiguus inhibits activity of cardiovascular units in RVLM
D.J. McKitrick and F.R. Calaresu (Canada) 203
The effects of copper ions on glutamate receptors in cultured rat cortical neurons
T. Weiser and M. Wienrich (Germany) 211
Effect of microinjection of muscimol into the dorsomedial or paraventricular hypothalamic nucleus on air stress-induced neuroendocrine and cardiovascular changes in rats
E.H. Stotz-Potter, S.M. Morin and J.A. DiMicco (USA) 219
Multiple action potential waveforms of single units in man as signs of variability in conductivity of their myelinated fibres
G. Wu, R.G. Hallin and R. Ekedahl (Sweden) 225
Adaptive modeling of the unattended acoustic environment reflected in the mismatch negativity event-related potential
I. Winkler, G. Karmos and R. Näätänen (Hungary, Finland) 239
Losartan inhibition of angiotensin-related drinking and Fos immunoreactivity in hypertensive and hypotensive contexts
N.E. Rowland, A. Morien and M.J. Fregly (USA) 253
Tyrosine hydroxylase and aromatic L-amino acid decarboxylase in mesencephalic cultures after MPP^+: the consequences of treatment with GM1 ganglioside
A. Dalia, N.H. Neff and M. Hadjiconstantinou (USA) 260
Peripheral nerve regeneration through short- and long-term degenerated nerve transplants
A.K. Gulati (USA) 265
Gliosis in the LP-BM5 murine leukemia virus-infected mouse: an animal model of retrovirus-induced dementia
Y. Kustova, Y. Sei, G. Goping and A.S. Basile (USA) 271
Ibotenic acid lesions of the amygdala basolateral complex or central nucleus differentially effect the response to reductions in reward
J.A. Salinas, M.B. Parent and J.L. McGaugh (Canada, USA) 283
Neurotensin inhibits the activation of midbrain serotonergic neurons produced by random inescapable sound
R.P. Dilts, M.R. Novitzki, T.-H. Phan, K.C. Corley and M.C. Boadle-Biber (USA) 294

Short communications

Muscarinic control of amyloid precursor protein secretion in rat cerebral cortex and cerebellum
Z. Pittel, E. Heldman, J. Barg, R. Haring and A. Fisher (Israel) 299
The anti-epileptic effect of 3-aminopropylarsonate on electrically-kindled and *N*-methyl-D-aspartate-kindled amygdala
A.-S. Abdul-Ghani, P.J.E. Attwell and H.F. Bradford (Israel, UK) 305
Lack of dopamine receptor agonists effect on striatal dopamine transporter binding sites
K.Y. Little, J. Gorebig, F.I. Carroll, J. Mapili and J.H. Meador-Woodruff (USA) 313
Ontogeny of β-adrenoceptor/adenylyl cyclase desensitization mechanisms: the role of neonatal innervation
T.A. Slotkin, J.L. Saleh, J. Zhang and F.J. Seidler (USA) 317
Changes in the isotype composition of β-tubulin delivered to regenerating sensory axons by slow axonal transport
P.N. Hoffman and R.F. Luduena (USA) 329
Morphometric analysis of vasopressin and vasoactive intestinal polypeptide neurons in the human suprachiasmatic nucleus: influence of microwave treatment
J.-N. Zhou, M.A. Hofman and D.F. Swaab (The Netherlands) 334
Transient alterations in neurotransmitter levels during a critical period of neural development in coho salmon (*Oncorhyncus kisutch*)
S.O.E. Ebbesson, J. Smith, C. Co and L.O.E. Ebbesson (USA) 339
μ-Opioid receptor binding in chicken brain in relation to degree of food restriction: a quantitative autoradiographic study
M.G. Stewart, C.J. Savory and E. Harrison (UK) 343
Estrogen regulation of μ opioid receptor density in hypothalamic premammillary nuclei
L.L. Brown, S. Pasi and A.M. Etgen (USA) 347
Estrous and sex variations in vocalization thresholds to hindpaw and tail pressure stimulation in the rat
V. Kayser, K.J. Berkley, H. Keita, M. Gautron and G. Guilbaud (France) 352
Increased pituitary growth hormone-releasing factor (GRF) receptor messenger ribonucleic acid expression in food-deprived rats
H. Sugihara, N. Emoto, T. Shibasaki, S. Minami and I. Wakabayashi (Japan) 355

Erratum

State-dependent cellular activity patterns of the cat paraventricular. hypothalamus measured by reflectance imaging. (This article has already been published in *Brain Research* Vol. 727 (1996) 107–117)
M.P. Kristensen, D.M. Rector, G.R. Poe and R.M. Harper (USA) 359

Author Index 360